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(54) **HIV protease inhibitor combinations**

(57) Combinations of certain HIV-1 protease inhibitors are provided which effectively inhibit the HIV-1 protease enzyme while eliminating or substantially reducing the viral cross-resistance seen with use of individual

HIV-1 protease inhibitors. Such combinations are useful in the treatment of diseases associated with the AIDS virus.

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## EUROPEAN SEARCH REPORT

Application Number  
EP 95 30 4718

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CL.6)
X,D	EP-A-0 580 402 (E.R. SQUIBB & SONS INC.)	1,2,9,	C07K5/02
Y	* page 214 - page 215; example 226 *	10,17,18	C07K5/06
	* page 60, line 50 - line 58 *	1,3-9,	
	* claims 1,20-24 *	11-17,	
	---	19-24	
Y,P, D	REVIEWS IN MEDICAL VIROLOGY, vol. 5, no. 1, March 1995 pages 23-33, D. PILLAY ET AL 'HIV-1 Protease Inhibitors: Their Development, Mechanism of Action and Clinical Potential' * page 26; figure 5; table 1 * * page 27, left column, line 28 - line 36 * * page 28, left column, line 43 - right column, line 16 *	1,3,5, 7-9,11, 13, 15-17, 19,21, 23,24	
Y,D	EP-A-0 402 646 (ABBOTT LABORATORIES) * claims 1-14 * * page 187, line 48 - page 188, line 8 *	1,4,9, 12,17,20	TECHNICAL FIELDS SEARCHED (Int. CL.6)
	---		C07K A61K
Y,D	EP-A-0 486 948 (ABBOTT LABORATORIES) * claims 1-11 * * page 143, line 8 - line 32 *	1,6,9, 14,17,22	
	---		
A,D	WO-A-92 08688 (MONSANTO COMPANY) * page 94; table 7 * * page 168, line 29 - line 36 *	1-24	
	---		
A,D	EP-A-0 432 695 (F. HOFFMANN-LA ROCHE AG) * claims 1-6 *	1-24	
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The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 21 December 1995	Examiner Siatou, E
CATEGORY OF CITED DOCUMENTS			
X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document		T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document	

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A,D	EP-A-0 541 168 (MERCK & CO. INC.) * page 18, line 36 - line 51 * * claims 1,6-9 * -----	1-24	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
The present search report has been drawn up for all claims			
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<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p>			

EPO FORM 150 (3.92) (P0401)